

REMARKS

Claims 1-17 are pending. Claims 1-17 have been amended. Applicants reserve the right to pursue original and other claims in this and in other applications.

The Abstract of the disclosure is objected to because of the inclusion of "legal phraseology[:]"..."means." The abstract is also objected to because it is not a narrative.

The Abstract has been amended consistent with the recommendations of the Office Action. No new matter has been added. Thus the objection to the Abstract should be withdrawn and the claims allowed.

Claims 3, 7, 8, 13, and 16 stand objected to because of informalities.

Claims 3, 7, 13, and 16 have been amended consistent with the recommendation of the Office Action. No new matter has been added. Claim 8 has been amended to correct the informality. Thus the objection of claims 3, 7, 8, 13, and 16 should respectfully be withdrawn and the claims allowed.

Claims 1-2 and 7-17 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. As the Office Action states:

The claims are directed to computer programs, which are merely functional descriptive material when not claimed in combination with an appropriate computer readable medium. The claims do not define any structural or functional relationship between the computer program and the other claimed elements of a computer to allow the computer program's functionality to be realized, and as such are non-statutory. See 35 U.S.C. 101 Interim Guidelines, pages 50-54.

Claims 1-2 and 7-17 have been amended to conform to 35 U.S.C. 101 Interim Guidelines. These claims comply with the Interim guidelines and define statutory subject matter. Each of the independent claims include a limitation of being encoded in computer readable medium of and being configured to be executed by a processing system (e.g., a computer or a game machine). For example, claim 1 includes a limitation of a "program for

projecting a predetermined image ...the program encoded in computer readable medium and configured to be executed by the game machine....” Thus, the rejection of these claims should respectfully be withdrawn and the claims allowed.

Claims 7-17 stand under 35 U.S.C. §112, 2nd para., as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7-17 have been amended to conform to correct the indefiniteness. Thus the rejection of these claims should respectfully be withdrawn and the claims allowed.

Claims 1-8, 11-12, and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukizaki et al. (U.S. Pat. No. 6,856,321)(“ Tsukizaki”) in view of Takata (U.S. Pat. No. 6,816,164)(“ Takata”). This rejection is respectfully traversed.

Claim 1 recites, *inter alia*, a “program for projecting a predetermined image onto a character of a game in a game machine having an operation unit for executing predetermined operation in a screen, a calculation processing unit for executing predetermined calculation, and a control unit connected with the operation unit and the calculation processing unit and for controlling the calculation processing unit, the program encoded in computer readable medium and configured to be executed by the game machine, the program comprising: an image creation process which creates an image consisting of two-dimensional coordinates with the control unit by operating the operation unit; and a pasting process which arranges the image created by the image creation process and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a three-dimensional virtual space, based on an input signal from the operation unit, and for pasting on the character a projected image created by projecting the image onto the character from the projection light source, wherein the pasting process pastes on the character the projected image such that the projected image projected on a projection plane closest to a viewpoint is remains after the character projected on the projected image is pasted on the projection plane.”

Tsukizaki discloses that in “order to form an image by projecting a texture 520 at an arbitrary angle to an arbitrary position on a surface of an object 500 represented as a 3D model,

texture data 520 is divided into texture lines 530 having a width of one dot and a length equal to the number of dots on one side of the texture. Then, supposed is a stereoscopic object 540 based on one texture line 530 that the texture line is extended in a light travel direction while possessing color information from an arrangement relationship between the texture line 530, object model 500 and virtual light source in the three dimensional space. The intersecting part 510 between the stereoscopic object 540 and the surface of the object model 500 is defined as a region for rendering the texture line, and thereby a stereoscopic object 540 is rendered onto the defined region.” (Tsukizaki, Abstract)

Tsukizaki fails to disclose “a pasting process which arranges the image created by the image creation process and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a three-dimensional virtual space, based on an input signal from the operation unit, and for pasting on the character a projected image created by projecting the image onto the character from the projection light source.” Nor does Tsukizaki disclose “...wherein the pasting process pastes on the character the projected image such that the projected image projected on a projection plane closest to a viewpoint remains, after the character projected on the projected image is pasted on the projection plane.”

Takata discloses a method “by which a texture is created by layering previously stored patterns and by applying a desired color to each layered pattern. The patterns are layered into an accumulation buffer which converts the layered patterns of selected colors into a bitmap image representative of the particular texture created by the layering and color selection process. The texture drawing is temporarily stored in the accumulation buffer, and is later mapped onto a three-dimensional model or character image for display.” (Takata, Abstract)

Takata fails to cure the deficiency of Tsukizaki, as Takata fails to disclose “a pasting process which arranges the image created by the image creation process and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a three-dimensional virtual space, based on an input signal from the operation unit, and for pasting on the character a projected image created by projecting the image onto the character from the projection light source.” Nor does Takata disclose “...wherein the pasting process pastes on the character the projected image such that the projected image projected on a

projection plane closest to a viewpoint remains, after the character projected on the projected image is pasted on the projection plane.”

Claim 2 depends from claim 1 and is allowable for at least the same reason as claim 1.

Claim 3 recites, *inter alia*, a “game machine having an operation means unit for executing a predetermined operation in a screen, calculation processing unit for executing a predetermined calculation, and control unit connected with the operation unit and the calculation processing unit and for controlling the calculation processing unit, the game machine for projecting a predetermined image onto a character of a game, comprising: an image creation unit which creates an image consisting of two-dimensional coordinates with the control means by operating the operation means; and a pasting unit which arranges the image created by the image creation unit and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a three-dimensional virtual space, based on an input signal from the operation unit, and pastes on the character a projected image created by projecting the image onto the character from the projection light source, wherein the pasting process pastes on the character the projected image such that the projected image projected on a projection plane closest to a viewpoint remains, after the character projected on the projected image is pasted on the projection plane.”

Tsukizaki fails to disclose “a pasting unit which arranges the image created by the image creation unit and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a three-dimensional virtual space, based on an input signal from the operation unit, and pastes on the character a projected image created by projecting the image onto the character from the projection light source.” Nor does Tsukizaki disclose “...the pasting process pastes on the character the projected image such that the projected image projected on a projection plane closest to a viewpoint remains, after the character projected on the projected image is pasted on the projection plane.”

Takata fails to cure the shortcoming of Tsukizaki and fails to disclose “a pasting unit which arranges the image created by the image creation unit and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a

three-dimensional virtual space, based on an input signal from the operation unit, and pastes on the character a projected image created by projecting the image onto the character from the projection light source.” Nor does Takata disclose “...the pasting process pastes on the character the projected image such that the projected image projected on a projection plane closest to a viewpoint remains, after the character projected on the projected image is pasted on the projection plane.” As such the rejection of claim 3 should respectfully be withdrawn and the claim allowed.

Claim 4 depends from claim 3 and is allowable for at least the same reason as claim 3.

Claim 5 recites, *inter alia*, a “storage medium having thereon stored a program for projecting a predetermined image onto a character of a game in a game machine including operation unit for executing predetermined operation in a screen, calculation processing unit for executing predetermined calculation, and control unit connected with the operation means and the calculation processing unit and for controlling the calculation processing unit, the program being executed by the game machine, the program comprising: an image creation process which creates an image consisting of two-dimensional coordinates with the control unit by operating the operation unit; and a pasting process which arranges the image created by the image creation unit and a virtual light source for projecting the image onto a character at an arbitrary position in the vicinity of the character in a three-dimensional virtual space, based on an input signal from the operation unit, and pastes on the character a projected image created by projecting the image onto the character from the projection light source, wherein the pasting process pastes on the character the projected image such that the projected image projected on a projection plane closest to a viewpoint remains, after the character projected on the projected image is pasted on the projection plane.”

Claim 5 has similar limitations as claim 3 and is allowable for at least the reasons noted above with respect to claim 3.

Claim 6 depends from claim 5 and is allowable for at least the same reason as claim 3.

Claim 7 recites, *inter alia*, an “image display control program for operating a computer as image data creation unit for creating image data for displaying on a display device an object image created by projecting a predetermined projection image onto an object consisting of three-dimensional coordinates in a three-dimensional virtual space, the image display control program in a computer readable medium and configured to be executed by a control unit of the computer, the image display control program comprising: creating predetermined projection image data to be projected onto the object; arranging the object and the projection image in the virtual space; determining, based on operation of an operator, the relative position of the projection image to the object and the position of a virtual light source which projects the projection image onto the object; calculating the distance between the virtual light source and a projection plane containing the projection position on the object, and calculating the projection plane of the object, onto which the projection image is projected, removing from the projection image a projection plane beyond a predetermined distance from the virtual light source; projecting the projection image onto the projection plane with the virtual light source as a viewpoint, and pasting the projection image to the projection plane of the object; and creating object image data for the object to which the projection image is pasted.”

Tsukizaki fails to disclose “pasting the projection image onto the projection plane of the object” and “creating object image data for the object to which the projection image is pasted.”

Nor does Takata disclose “pasting the projection image onto the projection plane of the object” and “creating object image data for the object to which the projection image is pasted.” Thus the rejection of claim 7 should be withdrawn and the claim allowed.

Claims 8, 11, and 15 depend from claim 7 and are allowable for at least the same reason as claim 7.

Claim 12 recites, *inter alia*, an “image display control program for operating a computer as image data creation unit for creating image data for displaying on a display device an object image created by projecting a predetermined projection image onto an object consisting of three-dimensional coordinates in a three-dimensional virtual space, the image display control program being executed by the computer, the image display control program

comprising: creating predetermined projection image data to be projected onto the object; arranging the object and the projection image in the virtual space; determining, based on operation of an operator, the relative position of the projection image to the object and the position of a virtual light source which projects the projection image onto the object; calculating for each pixel respectively the distance between the virtual light source and a projection plane containing the projection position on the object, projecting with the virtual light source as a viewpoint the pixels of the projection image onto the pixels on the projection plane closest to the viewpoint, and pasting the projection image onto the projection plane of the object; and creating object image data for the object to which the projection image is pasted.”

Tsukizaki fails to disclose “pasting the projection image onto the projection plane of the object” and “creating object image data for the object to which the projection image is pasted.”

Nor does Takata disclose “pasting the projection image onto the projection plane of the object” and “creating object image data for the object to which the projection image is pasted.”

As such, the rejection of claim 12 should be withdrawn and the claim allowed.

Claims 9-10, 13-14, and 16-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukizaki et al. (U.S. Pat. No. 6,856,321)(“ Tsukizaki”) in view of Takata (U.S. Pat. No. 6,816,164)(“ Takata”) and further in view of Tanaka et al (U.S. Pat. No. 6,256,040)(“ Tanaka”). This rejection is respectfully traversed.

Claims 9-10, 13-14, and 16-17 depend from claim 7 and are allowable for at least the reasons noted above with respect to claim 7.

Tanaka discloses a “covering object (42) that covers a three-dimensional object (40) is provided within an object space. Every time a game-clear condition is satisfied, the display/non-display state of a polygon forming the covering object (42) is sequentially switched. If a moving body (44) moves to specify a region (36), the polygons of that region (36) are set to non-display. Alternatively, polygons that form the covering object (42) are sequentially set to

non-display, on the basis of a criterion such as the ratio of correct answers in a quiz game, whether or not a mini-game has been cleared, or whether or not the player has won in Mah-Jongg. The transparent/nontransparent state of the covering object could equally well be switched sequentially, or the translucency thereof could be sequentially changed, or a texture mapped onto the three-dimensional object could be sequentially changed. If the region (36) is specified by the movement track of the moving body (44) intersecting itself, the image information of that region (36) is changed. A field-of-view image is synthesized from a viewpoint and a line-of-sight direction that follow the movement of the moving body (44).”
(Tanaka, Abstract)

Tanaka fails to cure the deficiencies of Takata and Tsukizaki and fails to disclose “pasting the projection image onto the projection plane of the object” and “creating object image data for the object to which the projection image is pasted.” As such, the rejection of claims 13-14, and 16-17 should be withdrawn the claims allowed.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

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